

What is claimed is:

1. A media holddown device comprising:

a platen;

5 a plurality of vacuum chambers for applying a negative pressure to a media positioned on the platen;

a vacuum conduit connected to said vacuum chambers; and

a vacuum source connected to said vacuum conduit, said vacuum chambers being part of a first component and said vacuum conduit being part of a second, separate component.

10 2. A device according to claim 1, wherein the first component is of a different material from the second component .

15 3. A device according to claim 1, wherein the platen is of the same material as the first component.

4. A device according to claim 1, wherein the first component is of plastics material and the second component is of sheet metal.

20 5. A device according to claim 1, wherein the first component comprises a plurality of sub-components arranged along a single second component .

6. A device according to claim 1, wherein the first component has a plurality of chambers extending along its length and separated by transverse dividing walls.

25 7. A device according to claim 1, wherein the first component has a plurality of chambers in the direction of its width separated by one or more intermediate longitudinal walls.

30 8. A device according to claim 6, wherein said chambers have a plurality of openings in communication with said vacuum conduit, the number, size and pattern of arrangement of said openings being selected in dependence upon desired air flow characteristics.

9. A device according to claim 7, wherein said chambers have a plurality of openings in communication with said vacuum conduit, the number, size and pattern of arrangement of said openings being selected in dependence upon desired air flow characteristics.

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10. A device according to claim 1, wherein the second component is a structural beam of the device.

11. A media holddown device comprising:

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a platen; and

a plurality of vacuum chambers for applying a negative pressure to a media configured to advance across the platen, wherein for at least part of the length of the platen, said vacuum chambers are arranged one behind the other in the direction of media advance and are connected to a same vacuum source.

12. A device according to claim 11, wherein the chambers are arranged in rows perpendicular to the direction of media advance.

13. A device according to claim 11, wherein the vacuum chambers are connected to said vacuum source by a vacuum conduit, one or more openings in each chamber communicating with the conduit, the arrangement being such that the number and/or size and /or pattern of openings differ between the rows of chambers.

14. A media holddown device comprising:

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a platen; and

a plurality of vacuum chambers for applying a negative pressure to a media positioned on the platen with respective walls separating adjacent pairs of chambers along the platen, the chambers being connected via respective paths to a vacuum source capable of applying a negative pressure p , wherein said walls are positioned so that, for substantially all widths of media extending from one end of the platen towards the other, the lowest negative pressure applied to the media does not fall below q , where q is smaller than p .

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15. A device according to claim 14, wherein for selected widths of media the arrangement is such that the lowest negative pressure applied to the media does not fall below r , where r lies between q and p .

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16. A method of determining where to locate chamber-separating dividing walls between the vacuum chambers of a media holddown device, said method comprising:

arranging the chambers and the walls along a platen in a manner to substantially ensure that a sufficient negative pressure is substantially always applied by a vacuum source to a media positioned on the platen whatever the width of the media; and

arranging said chamber-separating dividing wall at a location or adjacent where the negative pressure would otherwise drop below a predetermined value q for a media having a corresponding width.

17. A method according to claim 16, further comprising:

locating dividing walls at one or more locations corresponding to pre-selected widths of media; and

omitting said dividing wall arranging step if said dividing wall arrangement would coincide with or be substantially close to one of the dividing walls located in said preliminary step.

18. A method according to claim 16, further comprising:

constituting a component forming the vacuum chambers by a plurality of sub-components having end walls and extending along the platen; and

omitting said chamber-separating dividing wall if said chamber-separating dividing wall would coincide with or be substantially close to a said end wall.

19. A method according to claim 18, wherein the sub-components each have end connection regions separated from the rest of the sub-component by end region dividing walls, said method further comprising omitting said chamber-separating dividing wall if said chamber-separating dividing wall would coincide with or be substantially close to said end region dividing wall.

20. A method according to claim 16, further comprising:
connecting the vacuum chambers by one or more respective openings to a vacuum
5 conduit which is connected to the vacuum source; and
determining the relative sizes of the openings to assist in ensuring that sufficient
negative pressure is substantially always applied.

21. A media holddown device comprising:
10 a platen;
and a plurality of vacuum chambers for applying a negative pressure to a media
positioned on the platen with respective walls separating adjacent pairs of chambers along
the platen, the chambers each being connected via one or more respective openings to a
vacuum conduit which is connected to a vacuum source, wherein the number, size and/or
15 pattern of said openings are different for at least some of said chambers.

22. A device according to claim 21, wherein the platen has holes, at least some of
which have a cross-section which is asymmetrical.

23. A hard copy apparatus comprising:
20 a media holddown device including a platen, a plurality of vacuum chambers for
applying a negative pressure to a media positioned on the platen, a vacuum conduit
connected to said vacuum chambers, and a vacuum source connected to said vacuum
conduit, said vacuum chambers being part of a first component and said vacuum conduit
25 being part of a second, separate component .

24. A hard copy apparatus comprising:
a media holddown device including a platen and a plurality of vacuum chambers
for applying a negative pressure to a media positioned on the platen with respective walls
30 separating adjacent pairs of chambers along the platen, the chambers each being connected
via one or more respective openings to a vacuum conduit which is connected to a vacuum
source, wherein the number, size and/or pattern of said openings are different for at least
some of said chambers.

